

Appl. No. 10/030,138  
Reply to Office Action of November 3, 2004

Attorney Docket: P67517US0

THE DISCLOSURE IN QUIBELL AND REJECTIONS UNDER 35 U.S.C. § 103:

The Examiner stated in page 2 of the office action that because Findeis make it obvious to replace L-amino acids with D-amino acids, the present invention is obvious over Quibell. This is based on the assumption that the use of D-amino acids is the only difference between the present invention and the compounds disclosed in Quibell. However, this assumption is incorrect.

The amended claims limit the length of the peptides of the present invention and distinguish it from the compounds in Quibell. More importantly, Quibell does not teach that "substitution of at least one of the N $\alpha$ -atoms within the peptide backbone of the  $\beta$ -strand" is sufficient to hinder sterically one edge of a  $\beta$ -strand associating with another  $\beta$ -strand, whilst still allowing the other unsubstituted edge to "associate with a target  $\beta$ -strand formed by a separate peptide-containing molecule." Furthermore, Quibell fails to teach the positioning of additional N $\alpha$ -substituents such that they "lie along only the second edge." These features of the embodiments of the present invention relates to compact  $\beta$ -amyloid inhibitors small enough to penetrate the blood barrier without compromising their potency.

Quibell discloses methods of synthesizing  $\beta$ -amyloids using large bulky blocking groups to prevent aggregation of a synthesized  $\beta$ -amyloid molecule with any other  $\beta$ -amyloid molecules in solution. The compounds disclosed in Quibell are never intended to associate with a separate peptide containing molecule. Therefore, Quibell teaches away from an important feature of the embodiment of the present invention which is to allow the association of one unsubstituted ~~substituted~~-edge of the  $\beta$ -strand with another separate peptide containing molecule, whilst blocking any association at the other substituted edge. This feature allows using substituted and unsubstituted edges in a single molecule to both associate, and block association, with separate peptide containing molecules.

Like the Quibell reference, Findeis fails to recognize the novel feature of the present invention. There is no reference in Findeis of using N $\alpha$ -substituents within the peptide backbone to prevent association with a separate molecule along one edge of the molecule whilst allowing association along the second unsubstituted edge.